

REMARKS

Claim 14 stands allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 1, 2-7, 10-12, and 15-18 stand rejected under 35 USC §103(a) as being unpatentable over Schettler et al., EPO 0417345 in view of Yamamichi et al., U.S. patent 6,524,905. Claims 3, 8, 9, and 13 stand rejected under 35 USC §103(a) as being unpatentable over Schettler et al., EPO 0417345 in view of Yamamichi et al., U.S. patent 6,524,905 in view of Chudzik et al., U.S. patent application 2004/0108587.

Claim 14 has been rewritten in independent form including all of the limitations of the base claim and any intervening claims. Each of the dependent claims 2-13, as amended, depend from patentable claim 14. Claims 2-15, as amended, more clearly state the invention. Claim 1 has been cancelled. Independent claim 15 has been amended to more clearly state the invention to include subject matter of indicated allowable claim 14. Reconsideration and allowance of each of the claims 2-18, as amended, is respectfully requested.

Schettler et al., EPO 0417345 discloses a design system for VLSI chips arranged on a carrier (3), preferably a thin film passive silicon carrier. A chip placement on the carrier is performed considering minimum overall connection length and providing preferably parallel connection. Dotted lines 8 around the areas of the power voltage lines 7 indicate capacitors for decoupling purposes. The chips are fixed to the carrier by the flip chip technique using solder balls. Collapse controlled chip connection C4 technique is provided by solder balls.

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Yamamichi et al., U.S. patent 6,524,905 discloses semiconductor device provided with a thin film capacitor having a small equivalent series inductance is provided, which can be operated at a high frequency range and contributes to size reduction of the electronic devices. The semiconductor device comprises a device formed on a silicon substrate 1a, interlayer insulating films 3a, 3b, and 3c, wiring blocks including a power source wire block and a ground wire block, and a thin film capacitor 14 formed on an uppermost insulating layer. The thin film capacitor 14 comprises a lower electrode 6 connected to the ground wire block 4e through a contact 5d, an upper electrode 8 which is connected to the power source wire block 4d through a contact 5d, and which extends above the lower electrode 6, and a dielectric layer 7 which is inserted between the lower and the upper electrodes. FIGS. 11 and 12 are flowcharts showing a manufacturing procedure from the design to the delivery of the semiconductor integrated circuit.

Chudzik et al., U.S. patent application 2004/0108587 discloses a carrier for a semiconductor component having passive components integrated in its substrate. The passive components include decoupling components, such as capacitors and resistors. A set of connections is integrated to provide a close electrical proximity to the supported components.

Reconsideration and allowance of independent claim 15, as amended, is respectfully requested. As amended, independent claim 15 recites apparatus for implementing customized silicon wafer chip carrier passive devices on a carrier package arrangement. Independent claim 15, as amended, recites that the silicon

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passive devices customizing program for fabricating silicon devices utilizing the generated respective physical design for customized passive devices and the logic chip includes dicing silicon chip decoupling capacitors from a peripheral area of a silicon wafer. Thus, independent claim 15, as amended, is patentable for the reasons as indicated allowable claim 14.

Dependent claims 16-18 depend from patentable claim 15 further defining the invention. Each of the dependent claims 16-18 is patentable over the references of record.

Applicants have reviewed all the art of record, and respectfully submit that the claimed invention is patentable over all the art of record, including the references not relied upon by the Examiner for the rejection of the pending claims.

It is believed that the present application is now in condition for allowance and allowance of each of the pending claims 2-18, as amended, is respectfully requested. Prompt and favorable reconsideration is respectfully requested.

If the Examiner upon considering this amendment should find that a telephone interview would be helpful in expediting allowance of the present application, the Examiner is respectfully urged to call the applicants' attorney at the number listed below.

Respectfully submitted,

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